

IN THE CLAIMS:

1. (Previously presented) A data storage manager operational in a data storage subsystem that uses a plurality of data storage elements to store data thereon for a plurality of host processors that are connected to said data storage subsystem, comprising:

means for storing a set of logical data storage device definitions that are created from said plurality of data storage elements;

means for identifying a set of data storage characteristics appropriate for a present data object;

means for comparing said identified set of data storage characteristics with said stored set of logical data storage device definitions;

means, responsive to a failure to match said identified set of data storage characteristics with a single one of said stored set of logical data storage device definitions, for creating a new logical device definition using a plurality of said stored set of logical data storage device definitions; and

means for storing said present data object on interconnected ones of said plurality of data storage elements that correspond to said new logical device definition.

2-3. (Cancelled)

4. (Previously presented) The data storage manager of claim 1 wherein said means for storing comprises:

means for allocating space on an existing instance of said interconnected ones of said plurality of data storage elements that correspond to said new logical device definition.

5. (Previously presented) The data storage manager of claim 1 wherein said means for storing comprises:

means for creating a new instance of said interconnected ones of said plurality of data storage elements that correspond to said new logical device definition.

6. (Previously presented) The data storage manager of claim 1 wherein said means for storing comprises:

means for storing data indicative of a plurality of data storage attributes from the class of data storage attributes comprising: speed of access to first byte, level of reliability, cost of storage, probability of recall, and expected data transfer rate.

7. (Previously presented) A method of operating a data storage manager operational in a data storage subsystem that uses a plurality of data storage elements to store data thereon for a plurality of host processors that are connected to said data storage subsystem, comprising the steps of:

storing a set of logical data storage device definitions that are created from said plurality of data storage elements;

identifying a set of data storage characteristics appropriate for a present data object;

comparing said identified set of data storage characteristics with said stored set of logical data storage device definitions;

creating, in response to a failure to match said identified set of data storage characteristics with a single one of said stored set of logical data storage device definitions, a new logical device definition using a plurality of said stored set of logical data storage device definitions; and

storing said present data object on interconnected ones of said plurality of data storage elements that correspond to said new logical device definition.

8-9. (Cancelled)

10. (Previously presented) The method of operating a data storage manager of claim 7 wherein said step of storing comprises:

allocating space on an existing instance of said interconnected ones of said plurality of data storage elements that correspond to said new logical device definition.

11. (Previously presented) The method of operating a data storage manager of claim 7 wherein said step of storing further comprises:

creating a new instance of said interconnected ones of said plurality of data storage elements that correspond to said new logical device definition.

12. (Previously presented) The method of operating a data storage manager of claim 7 wherein said step of storing comprises:

storing data indicative of a plurality of data storage attributes from the class of data storage attributes comprising: speed of access to first byte, level of reliability, cost of storage, probability of recall, and expected data transfer rate.

13. (Previously presented) A data storage manager operational in a data storage subsystem that uses a plurality of data storage elements to store data thereon for a plurality of host processors that are coupled to said data storage subsystem, comprising:

means for maintaining at least one storage attribute associated with a logical data storage device, said logical data storage device comprising at least a portion of said plurality of data storage elements;

means for identifying at least one storage attribute appropriate for a present data object;

means for comparing said identified storage attribute with said maintained storage attribute;

means, responsive to a failure to match said identified storage attribute with said maintained storage attribute, for creating a new logical data storage device; and

means for storing said present data object on that portion of said plurality of data storage elements that correspond to said new logical data storage device.

14. (Currently amended) The data storage manager of Claim 13, wherein said ~~plurality of data storage elements comprise~~ new logical data storage device comprises both physical and logical data storage elements.

15. (Previously presented) A data storage manager operational in a data storage subsystem that uses a plurality of data storage elements to store data thereon for a plurality of host processors that are coupled to said data storage subsystem, comprising:

means for maintaining at least one storage attribute associated with a logical data storage device, said logical data storage device comprising at least a portion of said plurality of data storage elements;

means for identifying at least one storage attribute appropriate for a present data object;

means for comparing said identified storage attribute with said maintained storage attribute;

means, responsive to a match of said identified storage attribute with said maintained storage attribute, for creating a new instantiation of said logical data storage device; and

means for storing said present data object on that portion of said plurality of data storage elements that correspond to said new instantiation of said logical data storage device.

16. (Currently amended) The data storage manager of Claim 15, wherein said ~~plurality of data storage elements comprise~~ new instantiation of said logical data storage device comprises both physical and logical data storage elements.

17. (Previously presented) In a data storage manager operational in a data storage subsystem that uses a plurality of data storage elements to store data thereon for a plurality of host processors that are coupled to said data storage subsystem, a method comprising the steps of:

maintaining at least one storage attribute associated with a logical data storage device, said logical data storage device comprising at least a portion of said plurality of data storage elements;

identifying at least one storage attribute appropriate for a present data object;

comparing said identified storage attribute with said maintained storage attribute;

creating, responsive to a failure to match said identified storage attribute with said maintained storage attribute, a new logical data storage device; and

storing said present data object on that portion of said plurality of data storage elements that correspond to said new logical data storage device.

18. (Previously presented) A data storage manager operational in a data storage subsystem that uses a plurality of data storage elements to store data

thereon for a plurality of host processors that are coupled to said data storage subsystem, comprising:

maintaining at least one storage attribute associated with a logical data storage device, said logical storage device comprising at least a portion of said plurality of data storage elements;

identifying at least one storage attribute appropriate for a present data object;

comparing said identified storage attribute with said maintained storage attribute;

creating, responsive to a match of said identified storage attribute with said maintained storage attribute, a new instantiation of said logical data storage device; and

storing said present data object on that portion of said plurality of data storage elements that correspond to said new instantiation of said logical data storage device.

19. (Newly added) The data storage manager of claim 1 wherein at least some of the plurality of data storage elements are non-homogeneous physical devices, and portions of a plurality of the non-homogeneous physical devices are logically associated in creating the new logical device definition.

20. (Newly added) The data storage manager of claim 13 wherein at least some of the plurality of data storage elements are non-homogeneous physical devices, and the new logical data storage device is defined using portions of a plurality of the non-homogeneous physical devices.

21. (Newly added) The data storage manager of claim 15 wherein at least some of the plurality of data storage elements are non-homogeneous physical devices, and the new instantiation of the logical data storage device is defined using portions of a plurality of the non-homogeneous physical devices.

#### REMARKS

Claims 1, 4-7 and 10-21 are now pending in the present application. Claims 1, 4-7 and 10-18 were rejected by the Examiner in an Office Action dated

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